

Appln. No. 09/877,645
Amdt. dated September , 2003
Reply to Office action of 06/09/03

Amendments to the Claims:

This listing of claims replace all prior versions, and listings, of claims in the application:

Listing of Claims:

Claim 1 (currently amended): A toothbrush comprising including a conventional family of bristles at one end for brushing the teeth, and a handle at the other end for grasping the toothbrush, and contained therein wherein internal recess chambers hold an interdental hard brush and a periodontal gum massager ~~[[and]]~~ stimulator tip, ~~[[and]]~~ or any other combination of periodontal ~~[[dental]]~~ tools, thus providing multiple dental tools in one assemblage, comprising,

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- a. said two recess chambers that can be cylindrical or any other shape, within the handle for holding and guiding the said periodontal tools as they extend and retract, and protecting them while the toothbrush is being used for the common brushing function,
 - b. two identical sliders that slide within said recess chambers and that have extension tubes attached to each of their two end terminations,
 - c. two external buttons that travel in two slots that engage said sliders, and can be moved horizontally by finger movement,
 - d. said slots in the wall of said recess chambers which control the movement of said buttons, that are keyed to said sliders, through said slots,

- e. said slots in the wall of said recess chambers that guide said buttons movement, and define the travel length of said buttons and said sliders, and positions said buttons for initial start and final extend positions.
- f. said extension tubes that are attached to said sliders, and move them by being keyed to said buttons, and can extend out of the end of said recess chambers a distance equivalent to the length of said slots inside said recess chambers.
- g. said extension tubes that can hold and retain on their end termination an interdental hard brush, a gum massager stimulator tip or other periodontal tools.
- h. said recess chambers that contain close-out caps at their end terminations to inhibit and prevent contamination from entering while not in use.

Claims 2 - 16 (canceled)

Claim 17 (new) : The toothbrush of Claim 1, comprising,

- a. a recess chamber in the handle of the toothbrush, that contains two sliders in tandem, that can be moved independently of each other, and controlled by two buttons that are keyed to said sliders, and are provided with two slots in the wall of said recess chamber, that permit said sliders to be able to be moved in opposite directions, and travel the distance defined by the length of said slots,
- b. a recess pocket in the toothbrush, below the bristles, that contains one of said periodontal tools and is interconnected to the said recess chamber, inside the handle, by means of a long tubular passage that contains a long extension tube attached to one of said sliders, at one end, and to one of said periodontal tools, at the other end,

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- c. a means for one of said periodontal tools to be attached to the end of said long extension tube, in the said recess pocket, below the bristles, that can be extended and retracted into said recess pocket, below the area of the bristles, by horizontal movement of one of said buttons, in said handle slot,
 - d. a means for one of said periodontal tools to be attached to the end of the slider extension tube in the said recess chamber, inside the handle, that can be extended and retracted into said recess chamber by horizontal movement of one of said buttons in said handle slot,
 - e. a means for each said button to be keyed to said sliders, in the long tubular passage in the handle, and each having the capability to independently extend and retract one of said periodontal tools attached to the sliders,
 - f. a means for containing a closeout cap at each end of said recess chambers that hold each said periodontal tool, to prevent contamination from entering therein.

Claim 18 (new): The toothbrush of Claim 1, comprising,

- a. two parallel recess chambers within the toothbrush handle that provide a means for holding said periodontal tools,
- b. a means for attaching said periodontal tools inside said recess chambers and having them rotate out to a position for their use,
- c. a means for each said periodontal tool to rotate around a pivot provided by a pin through the attachment cross member,

- d. a means for each said rotated periodontal tools to stay flat in their said recess chamber and be retained and captured in said recess with a sliding cover to protect from contamination,
- e. a means for each said recess covers to slide in guide tracks, in the side walls of said recess chambers,
- f. a means for said sliding covers to capture and retain said periodontal tools support cross members in an extended lock position.

Claim 19 (new): The toothbrush of Claim 1 comprising,

- a. three recess chambers, one forward and one aft of the central chamber, within the toothbrush handle, for holding and providing a means for extension and retraction of said periodontal tools inside,
- b. the means for extension and retraction of said periodontal tools consisting of two knurled sleeves that thread out or in a shaft for each, that have attached to their ends the extension tubes that hold each of said periodontal tools,
- c. said two knurled sleeves that are contained in parallel in the center recess chamber formed by two crosswise structural members,
- d. each said sleeve is rotated independently of the other, and contains a long threaded shaft that is supported by said structural members, at each end of the knurled sleeve, and capture them as they are rotated, which in turn threads in and out said long shafts,
- e. each said shaft holds one of said periodontal tools in the aft recess chamber and the rotation of said shaft by the threaded knurled sleeves moves them out of this said chamber and extends them for use,

- f. rotation of said sleeves in the reverse direction retracts said shaft and the periodontal tool attached into said aft recess chamber,
- g. the retraction function of the periodontal tool by the threaded sleeve extends the opposite end of the long shaft into the forward recess chamber, and both, the forward and the aft chambers are covered by the molded handle of the toothbrush and fully protect the periodontal tools from contamination,
- h. the center section provides a means for the user to access and rotate the knurled sleeves,
- i. the aft recess chamber contains close out caps, at the rear end, to protect from contamination the periodontal tools contained therein while not in use.

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